

Date: Tue, 3 May 94 04:30:10 PDT
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>
Errors-To: Ham-Ant-Errors@UCSD.Edu
Reply-To: Ham-Ant@UCSD.Edu
Precedence: Bulk
Subject: Ham-Ant Digest V94 #130
To: Ham-Ant

Ham-Ant Digest Tue, 3 May 94 Volume 94 : Issue 130

Today's Topics:

220MHz Radio/Antenna Gear FOR SALE
 Butternut HF-6V
 HB9CV
Homebrew antenna questions (3 msgs)
Vertical Antenna Recommendations? (2 msgs)
 Wire supports with give?
Y'all are a shy bunch, aintcha'? (2 msgs)

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>

Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>

Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 2 May 1994 16:37:00 -0500
From: ihnp4.ucsd.edu!swrinde!cs.utexas.edu!howland.reston.ans.net!torn!nott!
bnrgate!corpgate!crchh327.bnr.ca!debaker@network.ucsd.edu
Subject: 220MHz Radio/Antenna Gear FOR SALE
To: ham-ant@ucsd.edu

Hello,

I have the following 220MHz gear for sale. Everything is barely used,
and like new. I just don't have time for 220MHz...

| | | |
|---|-------|-----|
| 1) 220MHz module for the Yeasu FT-736R | \$225 | obo |
| 2) Diamond F-142A 220MHz Base Station Antenna | \$75 | obo |
| 3) 220MHz Cushcraft 7 element yagi | \$50 | obo |
| -> or above 3 items for \$300 | | |

4) 220MHz module for the Kenwood TM-742A or TM-741A \$225 obo
5) Larsen 220MHz Mag mount whip w/ 15ft coax \$25 obo
-> or above 2 items for \$225

Or all of the above for \$500

Please send email if interested.

```
+-----+
| David E. Baker      Internet: debaker@bnr.ca (Richardson, TX, USA) |
| Callsign: AB5PI      Amateur Packet: AB5PI@N5AUX.#DFW.TX.USA.NA |
| My opinions do not necessarily reflect the opinions of my employer |
+-----+
```

Date: 2 May 1994 22:08:28 GMT
From: pa.dec.com!nntpd.lkg.dec.com!iamu.chi.dec.com!little@decwrl.dec.com
Subject: Butternut HF-6V
To: ham-ant@ucsd.edu

In article <HIDEG.94Apr24193651@spsd10b.erim.org>, hideg@spsd10b.erim.org (Steve Hideg) writes:

```
|>I'm in the market for an HF vertical, primarily to work 40, 20, 15, and
|>perhaps 10m. I've been considering the Cushcraft R7. Recently, a friend
|>has put up a Butternut HF-6V for sale at a great price ($50). Does anyone
|>have experience with the Butternut?
|>
|>I will be putting this antenna on a roof tripod, 20-30 feet off the ground.
|>
|>Does the HF-6V need radials (unlike the R7)? What is the difference between
|>The HF-6V and the newer HF-6VX?
|>
```

I have an HF6V installed on a 8-10' mast outside my shack. The antenna *does* need either radials or a counterpoise to get reasonable performance. I have a counterpoise of about 16 or so tuned radials that run inside my garage (the antenna is mounted at the side of the garage.) So although I don't have the base of the antenna surrounded by a counterpoise in all directions, I still seem to get pretty good performance. The difference I've been told by Butternut between the HF6V and the HF6VX is the size of the pieces. The HF6VX breaks down into a smaller package for shipping. Once erected though, they should be identical.

73,
Todd
N9MWB

Date: 2 May 94 15:21:19 GMT
From: news-mail-gateway@ucsd.edu
Subject: HB9CV
To: ham-ant@ucsd.edu

Hi,
Does anybody know how antenna HB9CV can be fed with 50-ohm coax?
Thanks in advance fo any suggestions. Mike

Date: Mon, 2 May 1994 13:57:51 GMT
From: wri!pea@uunet.uu.net
Subject: Homebrew antenna questions
To: ham-ant@ucsd.edu

In anticipation of passing my 13wpm code test coming up in June, I have homebrewed my first hf vertical all-bander!!

Here's what I did: I took 125' of 12g wire (~1/2 wl 80m) and wrapped it helically <sp> on a ten foot section of 3" pvc pipe. Next I used four 4' pieces of 3/16" key stock material to make a capacitance hat on top and then took a 3' threaded rod (1/4") to use on the very top of the antenna. I spaced the windings 1" apart and wrapped the whole thing with that space-age wonder material - duct tape.

- aesthetic note - the duct tape makes the whole thing look pretty damned cool! It looks like a giant rubber duck antenna!

Anyway, after construction was completed, I took the antenna outside (I built the thing in our dining room, and yes my wife was really pleased about it!) and clamped it to our deck. I attached a single wire to the base of the antenna, put a banana plug on the other end and stuck the banana plug into my mfj dif-t tuner (the tuner is attached to my icom ic-740).

Well sir, I called my buddy who has his general license (I, presently, have my tech license) to come over and help me check my new hf sculpture, er, aaahh, antenna out.

To make a long and plesant afternoon story short, we powered up the rig and started cranking the inductor and twisting the capacitor knob. To our delight - and considerable astonishment - the thing loaded up on 10, 15, 20, 30, 40, 80 and 160m. With the dif-t tuner we were able to keep the swr down below 1.5:1 across each band... from one end of each band to the other... excellent!!

However, we could not get the antenna to load up on either 12m or 17m. Any comments or suggestions as to why not??

Plans are to hoist the thing up to the top of a 40' mast, install a decent ground radial system - pass the 13wpm code test - and start working you guys.

Building this antenna was a very enjoyable experience. It cost less than \$15.00 in materials. I can't say yet just how good of an antenna it is, but I am sure at the very least it will be at average, and hopefully outstanding!!

I would encourage you all to wrap wire on pvc!!

73 de Bruce, N9WKE

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Date: 2 May 94 22:27:22 GMT
From: agate!spool.mu.edu!howland.reston.ans.net!gatech!news-feed-1.peachnet.edu!
news.duke.edu!eff!news.kei.com!ssd.intel.com!chnews!cmoore@ucbvax.berkeley.edu
Subject: Homebrew antenna questions
To: ham-ant@ucsd.edu

Bruce Pea (pea@wri.com) wrote:
: I would encourage you all to wrap wire on pvc!!
: 73 de Bruce, N9WKE

Hi Bruce, I have a number of questions for you. What is the equivalent quarter-wavelength resonant frequency? Did you know that an 80m quarter-wave vertical has a take-off angle of 50-60 degrees on 20m-10m? What is your SWR on your single feed-line? Are you going to replace the feed-line with coax when you add your radials? High SWR on lengthy runs of coax equals significant losses.

The take-off angle on a vertical antenna increases above $5/8$ wavelength to the point of uselessness especially during the sunspot low. You probably have a useful 80m/40m antenna but I wouldn't expect much out of it on 20m-10m.

I suspect the reason that it doesn't load on 17m and 12m is that you are trying to force power into something like $3000+j2000$ like my 88 ft. center-fed dipole on 15m.

Didn't mean to rain on your parade.

73, KG7BK, CecilMoore@Delphi.com

Date: Mon, 2 May 1994 22:04:48 GMT
From: ihnp4.ucsd.edu!swrinde!gatech!darwin.sura.net!fconvx.ncifcrf.gov!
mack@network.ucsd.edu
Subject: Homebrew antenna questions
To: ham-ant@ucsd.edu

In article <Cp6HGG.E6L@wri.com> pea@wri.com (Bruce Pea) writes:

>

>In anticipation of passing my 13wpm code test coming up in
>June, I have homebrewed my first hf vertical all-bander!!

> To our delight - and considerable astonishment -
>the thing loaded up on 10, 15, 20, 30, 40, 80 and 160m. With the
>dif-t tuner we were able to keep the swr down below 1.5:1 across
>each band... from one end of each band to the other... excellent!!
>

>However, we could not get the antenna to load up on either 12m or
>17m. Any comments or suggestions as to why not??

>

>

Congratulations. I would be pleased the thing loads up as well as it does,
(you should also check that it's radiating too, rather than just warming the
ground). I wouldn't be upset that it doesn't work on 12 or 17.

>Plans are to hoist the thing up to the top of a 40' mast, install
>a decent ground radial system.

Elevating it wont help on HF. You'd be better getting a ground system
where it is,

73 Joe Mack
NA3T
mack@ncifcrf.gov

Date: 30 Apr 94 02:25:59 GMT
From: agate!ihnp4.ucsd.edu!library.ucla.edu!csulb.edu!csus.edu!netcom.com!
jkane@ucbvax.berkeley.edu
Subject: Vertical Antenna Recommendations?
To: ham-ant@ucsd.edu

I would like recommendations and comparisons of various HF vertical antennas. I am changing QTH's and need a small lot antenna. I plan on mounting the antenna about 10 feet above the house, possibly on a tripod. I would like to know if the antennas need radials, how well they get out, etc.

I know that the following antennas exist:

| | |
|-----------|--------|
| Butternut | HF-9VX |
| Cushcraft | R7 |
| Cushcraft | AP8A |
| Hustler | 6-BTV |
| Hygain | DX-88 |
| MFJ | 1796 |

If you are spending your own money, what would you buy?

Thanks and 73

John Arthur Kane, N5SLH, Network Design Analyst, Paranet, Inc, 214/239-5544

email: jkane@netcom.com
kane@dfw.paranet.com

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John Arthur Kane, N5SLH, Network Design Analyst, Paranet, Inc, 214/239-5544

email: jkane@netcom.com
kane@dfw.paranet.com

Date: 2 May 94 21:11:38 GMT

From: agate!howland.reston.ans.net!cs.utexas.edu!swrinde!ihnp4.ucsd.edu!
library.ucla.edu!psgrain!news.tek.com!cascade.ens.tek.com!not-for-
mail@ucbvax.berkeley.edu

Subject: Vertical Antenna Recommendations?

To: ham-ant@ucsd.edu

I personally would recommend the Butternut. I have an HF6V with 12/17 and 160 meters added and am a believer in it. I DON'T believe the claims about the R7 and others not needing radials and being equivalent to the Butternut. Right now I am reading a book called Vertical Antenna Handbook by Capt. Paul H. Lee, USN(RET), N6PL published by CQ magazine. I recommend it to really get an idea as to how verticals really work. At least, I recommend it as of chapter 5.

One thing I have noted, any vertical you listed and I have seen advertized

is extremely short and inefficient on 80/160 meters because the feedpoint resistance is like 1-10 ohms and the reactance is 300-1000 ohms. Hard to get the antenna current up and to radiate. Check out the book.

Good luck
Terry, KI7M

Date: 28 Apr 1994 15:57:01 GMT
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!overload.lbl.gov!agate!doc.ic.ac.uk!
bright.ecs.soton.ac.uk!pdh@network.ucsd.edu
Subject: Wire supports with give?
To: ham-ant@ucsd.edu

\$0.02 worth. You can use bungees but you'll have to replace them every two years or so, Another thing to not is that solid wire (as opposed to stranded) will stretch quite happily but, it'll only stretch so far. Try to stretch it any further and it breaks.
Good luck.

--
[] Peter Harris, Optoelectronics Network Supervisor, Southampton University []
"Sir, you will either die on the gallows or of the pox !"
"That, my Lord, depends on whether I embrace your principles or your mistress"
John Wilkes to The Earl of Sandwich, Parliament, November 1763

Date: 30 Apr 1994 12:20:33 GMT
From: ihnp4.ucsd.edu!agate!doc.ic.ac.uk!bright.ecs.soton.ac.uk!
pdh@network.ucsd.edu
Subject: Y'all are a shy bunch, aintcha'?
To: ham-ant@ucsd.edu

In <2pslcp\$24he@whale.st.usm.edu> wwatkins@whale.st.usm.edu (William Matt Watkins) writes:

[snip]

>So, let's try it again from scratch. How do I make an antenna
>for an AM or FM radio that is highly directional?

I think the trouble here is that you don't even realise what you're asking. Assuming that you mean Medium Wave when you say AM, about

the only option you have is an antenna called a frame or a loop.
This is basically several turns of wire (you'll have to look up how
many, I'm afraid) on a frame maybe 2 feet square, tuned by a variable
capacitor. This should do what you need.

FM being 88-108 MHz (?) there's little point in making one,
as commercial beams are quite cheap. Don't forget though, as thes
antennae are directional you'll have to have some means of rotating
them.

Hope this helps in some way.

--

[] Peter Harris, Optoelectronics Network Supervisor, Southampton University []

"Sir, you will either die on the gallows or of the pox !"

"That, my Lord, depends on whether I embrace your principles or your mistress"

John Wilkes to The Earl of Sandwich, Parliament, November 1763

Date: 30 Apr 94 04:04:41 GMT

From: agate!howland.reston.ans.net!cs.utexas.edu!convex!darwin.sura.net!

nnntp.st.usm.edu!whale.st.usm.edu!not-for-mail@ucbvax.berkeley.edu

Subject: Y'all are a shy bunch, aintcha'?

To: ham-ant@ucsd.edu

Surely ALL of you didn't fail to see the sarcasm in my last post where
I asked advice on constructing a directional antenna. Did you?

So what's the deal? Are you afraid to associate yourselves with
someone who is ignorant of antennadom? Sorry, but if I knew
very much about antennas I wouldn't be here asking for advice, now
would I?

So, let's try it again from scratch. How do I make an antenna
for an AM or FM radio that is highly directional?

Follow-ups, e-mail or collect calls accepted.

I hereby formally invite anyone who reads this to respond.

God will smile upon you if you respond.

Thanks, Wm. M. Watkins
(wwatkins@whale.st.usm.edu)

End of Ham-Ant Digest V94 #130
